



We do the right thing.

System Plan Revision 17 Preliminary Results



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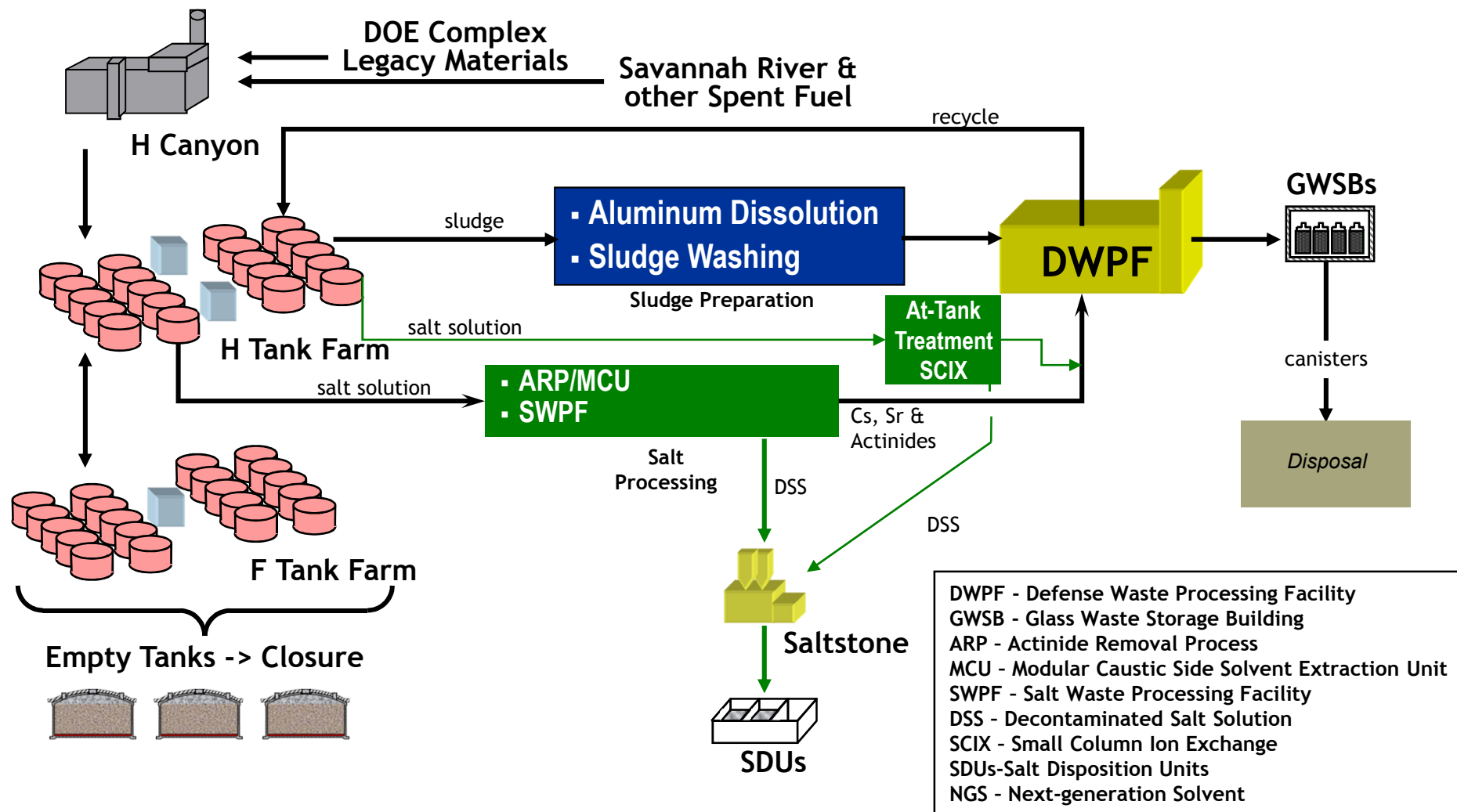
PURPOSE

- To fulfill Savannah River Site Citizens Advisory Board 2012 Waste Management Committee Work Plan topic

Agenda

- Liquid Waste Process Overview
- System Plan Rev. 17 Status
- System Plan Rev. 17 Preliminary Results
- Summary

Liquid Waste System



- Approved by SRR
- DOE Review in progress
- Forecast DOE Approval end of February 2012

System Plan Targeted Results

- System Plan Rev. 17 assumptions are aligned to meet the Federal Facility Agreements for waste removal and tank closure commitments and the Site Treatment Plan commitment for completion of waste processing
- **Process salt waste**
 - Operate Interim Salt Processing (ARP/MCU) to provide needed tank space and support Salt Waste Processing Facility (SWPF) Operations
 - Provide feed to SWPF & Small Column Ion Exchange (SCIX)
 - Start up and operate SWPF & SCIX
- **Reduce lifecycle cost and schedule for sludge processing**
 - Optimize Defense Waste Processing Facility (DWPF) processing efficiency (waste loading, process improvement, etc.)
 - Deploy technology for reducing sludge mass - aluminum removal
- **Close tanks**
 - Deploy technologies for tank cleaning - chemical, mechanical and annulus
 - Gain regulatory approval - Section 3116 and State
- **Support H-Canyon nuclear materials disposition operations**

- Changes are driven by:
 - Advances in Technology
 - Change in Sequencing
 - Acceleration Opportunities
 - Cost Savings Opportunities
 - Funding Adjustments

System Plan Rev 17 Inputs and Assumptions

- ARP/MCU
 - The ARP and MCU facilities will shutdown prior to the startup of SWPF allowing for SWPF tie-ins
- Small Column Ion Exchange (SCIX)
 - Rescheduled based on funding to September 2018
- Salt Waste Processing Facility (SWPF)
 - Start-up October 2014
 - Processing rates increased through implementation of next generation solvent

System Plan Rev 17 Inputs and Assumptions

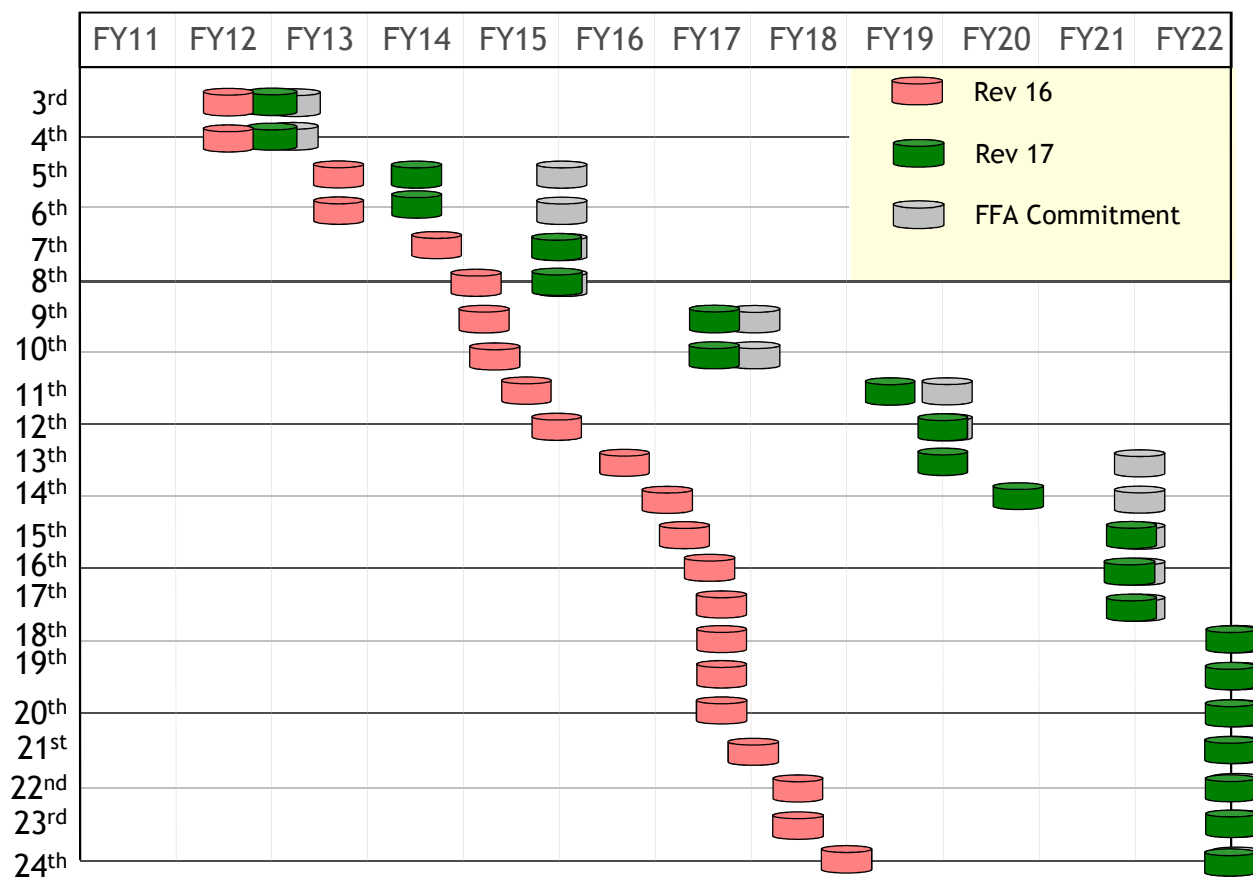
- Saltstone Processing Facility
 - Processing supports ARP/MCU operations and is increased with SWPF startup
- DWPF will implement productivity enhancements during the SWPF tie-in outage
 - Modifications support increased influents from SWPF acceleration
- DWPF melter replacement occurs during the SWPF tie-in outage and then every 6 years
- Tank Farms will support waste receipts from H-Canyon

Results

Key Milestone	Revision 16	Rev. 17
Date when all Type I, II, and IV tanks are closed	FY18	FY22
DWPF processing complete	2024	2026
Salt Processing Complete	2024	2025
Total number of canisters produced	7,557	7,580
<i>–Salt only canisters produced</i>	<i>0</i>	<i>0</i>
Additional Canister Storage Need	FY16	FY17
Initiate SWPF Processing	July 2014	October 2014
<i>–Salt Solution Processed via DDA only</i>	<i>2.8 Mgal</i>	<i>2.8 Mgal</i>
<i>–Salt Solution Processed via ARP/MCU</i>	<i>6 Mgal</i>	<i>5.2 Mgal</i>
<i>–Salt Solution Processed via SCIX</i>	<i>27Mgal</i>	<i>16 Mgal</i>
<i>–Salt Solution Processed via SWPF</i>	<i>61Mgal</i>	<i>78 Mgal</i>
<i>–Total Salt Solution Processed</i>	<i>97 Mgal</i>	<i>102 Mgal</i>
Total number of Saltstone Disposal Units	42	12*

* Higher capacity “Mega” SDUs

Closure Summary



Summary

- The System Plan documents current operating strategy of the SRS Liquid Waste System
- System Plan Rev. 17 assumptions are aligned to meet the Federal Facility Agreements (FFA) for waste removal and tank closure commitments and the Site Treatment Plan (STP) commitment for completion of waste processing
- System Plan Revision 17 forecasts compliance with FFA and STP commitments